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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,994	07/24/2003	Madhavi W. Chandra	062891.0956	9889

5073 7590 09/29/2006

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EXAMINER	
HOM, SHICK C	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 09/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/625,994	CHANDRA ET AL.	
	Examiner	Art Unit	
	Shick C. Hom	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 4-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/28/06 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-2 and 4-29 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at

> the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 2, 4, 7, 9-11, 14, 16-18, 21, 23-25, 27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kang (2004/0028060) in view of Sehr (6,085,976).

Regarding claims 1, 2, 4, 9, 11, 16-18, 23-25:

Kang discloses an apparatus, method, system, and software for communicating packets in a network environment, comprising: a network element operable to receive a packet and to identify a sequence number included in the packet, wherein the sequence

number is associated with a state of one or more adjacent network elements, and wherein the network element is operable to exchange state information with the one or more adjacent network elements as in claims 1, 9, 16, 23; and wherein the packet is a Hello packet that includes the sequence number in its corresponding header as in claims 4, 11, 18, 25 (see the abstract which recite receiving state information indicating the state of the link connected to a neighboring node; paragraphs 13, 25, which recite having sequence number associated with the link state information whereby the state information is discarded if the sequence number has already been received; paragraphs 0017-0018 which recite transmitting a hello packet having a sequence number to the neighbor node).

Regarding claims 7, 14, 21, 27:

Kang discloses wherein the network element is operable to query a selected one of the adjacent network elements in order to receive missing awareness information, and wherein an absence of the missing awareness information is reflected by the sequence number (see paragraph 0076 which recite periodically transmitting the hello packet to check the state of connection with the neighboring node and transmitting a packet to make request of state information of a neighboring node clearly reads

on querying the adjacent network elements for missing awareness information reflected by the sequence number).

Regarding claim 29:

Kang discloses wherein the network element is a router and the sequence number is selected from circular number space (see paragraph 0102 which recite the period indicating the time interval for setting the cycle of the hello packet clearly reads on the sequence number being from circular number space).

Kang discloses all the subject matter of the claimed invention with the exception of wherein the network element is operable to exchange incremental state information with the one or more adjacent network elements if the sequence number included in the packet has not already been received, i.e. continue to exchange incremental fragment of state information if the sequence number has not already been received, and wherein the network element includes a transmitter state operable to build and to communicate the packet to a selected one or more of the adjacent network elements as in claims 1-2, 9-10, 16-17, 33-34.

Sehr from the same or similar fields of endeavor teach that it is known to provide wherein the network element is operable to exchange incremental state information with the one or more adjacent network elements if the sequence number included in the

packet has not already been received, i.e. continue to exchange incremental fragment of state information if the sequence number has not already been received, and wherein the network element includes a transmitter state operable to build and to communicate the packet to a selected one or more of the adjacent network elements (see col. 5 lines 12-48 which recite receiving new information via an incremental exchange of information with the plurality of remote system entities clearly reads on exchanging incremental state information with adjacent network elements if packet has not already been received, i.e. continue to exchange incremental fragment of state information if the sequence number has not already been received).

Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide wherein the network element is operable to exchange incremental state information with the one or more adjacent network elements if the sequence number included in the packet has not already been received and wherein the network element includes a transmitter state operable to build and to communicate the packet to a selected one or more of the adjacent network elements as taught by Sehr in the communications method and apparatus of Kang.

The network element being operable to exchange incremental state information with the one or more adjacent network elements if the sequence number included in the packet has not already been received and wherein the network element includes a transmitter state operable to build and to communicate the packet to a selected one or more of the adjacent network elements can be implemented by using the technique of exchanging incremental state information with the one or more adjacent network elements if the sequence number included in the packet has not already been received whereby the network element includes a transmitter state operable to build and to communicate the packet to a selected one or more of the adjacent network elements of Sehr to the method and apparatus of Kang. The motivation for providing wherein the network element is operable to exchange incremental state information with the one or more adjacent network elements if the sequence number included in the packet has not already been received and wherein the network element includes a transmitter state operable to build and to communicate the packet to a selected one or more of the adjacent network elements as taught by Sehr in the communication method and apparatus of Kang being that incremental exchange to selected elements provides more efficiency for the system since the system is provided with the

most up-to-date data faster and more reliably because it lower telecommunications expenditures since the system only exchange information when there is a change, i.e. when the sequence number changes.

5. Claims 5-6, 8, 12-13, 15, 19-20, 22, 26, and 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Kang (2004/0028060) and Sehr (6,085,976) in view of Choe et al. (2003/0067924).

For claims 5-6, 8, 12-13, 15, 19-20, 22, 26, and 28 Kang and Sehr disclose the apparatus, method, system and software described in paragraph 4 of this office action. Kang and Sehr discloses all the subject matter of the claimed invention with the exception of wherein the packet includes a fragment value operable to indicate whether the packet is a fragment to be included with other fragments in order to comprise an entire packet that includes awareness information; wherein the network element includes a fragment timer operable to provide a time interval in which fragments are to be received at a selected location in a network; and wherein the packet includes a checksum operable to provide an error detection function for the

packet at receiving and transmission locations associated with a selected one or more of the network elements.

Choe et al. from the same or similar fields of endeavor teach that it is known to provide wherein the packet includes a fragment value operable to indicate whether the packet is a fragment to be included with other fragments in order to comprise an entire packet that includes awareness information (see paragraphs 0049 and 0055 which describe the packet fragmentation); wherein the network element includes a fragment timer operable to provide a time interval in which fragments are to be received at a selected location in a network (see paragraph 0069 which recite the timer); and wherein the packet includes a checksum operable to provide an error detection function for the packet at receiving and transmission locations associated with a selected one or more of the network elements (see paragraph 0051 which recite the packet checksum field). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide wherein the packet includes a fragment value operable to indicate whether the packet is a fragment to be included with other fragments in order to comprise an entire packet that includes awareness information; wherein the network element includes a fragment timer operable to provide a time interval in which fragments are

to be received at a selected location in a network; and wherein the packet includes a checksum operable to provide an error detection function for the packet at receiving and transmission locations associated with a selected one or more of the network elements as taught by Choe et al. in the communications apparatus of Kang and Sehr. The packet being a fragment to be included with other fragments in order to comprise an entire packet that includes awareness information; wherein the network element includes a fragment timer operable to provide a time interval in which fragments are to be received at a selected location in a network; and wherein the packet includes a checksum operable to provide an error detection function for the packet at receiving and transmission locations associated with a selected one or more of the network elements can be implemented by using the packet including the fragment value, checksum, and connecting the fragment timer of Choe et al. to the apparatus of Kang and Sehr. The motivation for using the packet including the fragment value, checksum, and connecting the fragment timer as taught by Choe et al. in the communication apparatus of Kang and Sehr being that it provides more efficiency and reliability for the system since the system can more quickly determine failure with the checksum value at the receiving end.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Di Benedetto et al. disclose high availability architecture for network devices.

Bare disclose MAC address learning and propagation in load balancing switch protocols.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C. Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SH SH

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